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A' 28. Apparatus for treating a waste material containing gelatin comprising:

a) combining means for combining the waste material and a solvent for the gelatin to form a first liquid containing gelatin;

b) separation means for separating the first liquid into a solvent based layer and a non-solvent based layer; and

c) removal means for removing residual oils and/or particulates from the solvent based layer to form a second liquid containing gelatin having a higher purity than the first liquid.

29. The apparatus of claim 28 further comprising treating means for treating the non-solvent based layer to remove and recover individual oils therefrom.

30. The apparatus of claim 29 comprising distilling means for distilling the non-solvent based layer.

31. The apparatus of claim 30 wherein the distilling means comprises a fractional distillation device or a short path distillation device.

32. The apparatus of claim 29 wherein the treating means comprises a reverse osmosis device.

33. The apparatus of claim 28 wherein the removal means comprises a hot filtration device.

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A' 34. The apparatus of claim 33 wherein the hot filtration device is selected from the group consisting of a liquid:liquid centrifugation device, a submicro/microfiltration device, a liquid:liquid coalescence device, an absorbance device and a filter aid device.

5 35. The apparatus of claim 34 wherein the hot filtration device is a tangential flow filter.

36. The apparatus of claim 33 wherein the hot filtration device removes the residual oils and particulates to form a filtrate, said apparatus further comprising recycling means for recycling the filtrate.

10 37. The apparatus of claim 36 further comprising treating means for treating the filtrate to remove at least some of the solvent.

38. The apparatus of claim 37 wherein the treating means is selected from the group consisting of a vacuum distillation device, a diafiltration device and a short path distillation device.

15 39. The apparatus of claim 33 wherein the hot filtration device form a third liquid, said apparatus further comprising solvent removal means for removing at least a portion of the solvent from the third liquid

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40. The apparatus of claim 39 further comprising removal means for removing any dyes from the third liquid.

41. The apparatus of claim 28 further comprising separation means for separating the particulates from the oils and forwarding means for forwarding the oils
5 to the non-solvent based layer.

42. The apparatus of claim 39 wherein the third liquid contains a softening agent, said apparatus further comprising a short path distillation device to form a fourth liquid containing gelatin, softening agent and dyes if present.

43. The apparatus of claim 40 wherein the third liquid contains a softening
10 agent, said apparatus further comprising ultrafiltration means to remove the softening agent and any dyes from the third liquid.

REMARKS

Pursuant to a telephone conference with Examiner Popovics on November 4, 1999, the foregoing preliminary amendment is submitted for the purpose of adding
15 claims directed to an apparatus for treating a waste material containing gelatin which is similar in scope to the method claims filed with the original application. Entry of the amendment is deemed proper and is respectfully requested.